

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

1. (Canceled)

2. (Currently Amended) ~~A method according to claim 1, characterised in that the method further comprises~~ A method of decoding a communications signal in a digital communications system, wherein the communications signal is modulated according to a modulation scheme including amplitude information. the method comprising:

receiving [(the)] a communications signal by a receiver module;

generating a likelihood value for a received communications signal, wherein the step of generating the likelihood value further comprises generating the likelihood value on the basis of the provided reliability indication of the amplitude information, wherein
~~and that the reliability indication is provided by the receiver module[.];~~

decoding the communications signal based on at least the generated likelihood value; and

providing a reliability indication of the amplitude information conveyed by the received communications signal.

3. (Currently Amended) ~~[[A]] The method according to claim 2, characterised in that~~ wherein the step of receiving the communications signal further comprises scaling the communications signal by an amplifier[.]; and the step of providing the reliability indication by the receiver module comprises generating the reliability indication on the basis of a gain setting of said amplifier.

4. (Currently Amended) ~~A method according to anyone of claims 1 through 3, characterised in that~~ A method of decoding a communications signal in a digital communications system, wherein the communications signal is modulated according to a modulation scheme including amplitude information, the method comprising

generating a likelihood value for a received communications signal, wherein the step of generating the likelihood value further comprises generating the likelihood value on the basis of the provided reliability indication of the amplitude information, the step of generating the likelihood value on the basis of the provided reliability indication comprises further comprising determining (702) whether an amplitude change by a predetermined magnitude has occurred within a predetermined time period[.];

decoding the communications signal based on at least the generated likelihood value; and

providing a reliability indication of the amplitude information conveyed by the received communications signal.

5. (Currently Amended) [[A]] The method according to claim 4, ~~characterised in that~~ wherein the predetermined time period corresponds to a time slot for communicating a bit sequence.

6. (Currently Amended) ~~A method according to anyone of claims 1 through 5, characterised in that~~ A method of decoding a communications signal in a digital communications system, wherein the communications signal is modulated according to a modulation scheme including amplitude information, the method comprising

generating a likelihood value for a received communications signal, wherein the step of generating the likelihood value further comprises generating the likelihood value on the basis of the provided reliability indication of the amplitude information wherein the step of generating the likelihood value on the basis of the provided reliability indication of the amplitude information further comprises adjusting (704) the likelihood

value to a value corresponding to higher uncertainty of a predetermined bit value if an amplitude change has occurred and if said bit value is encoded using amplitude information[.];

decoding the communications signal based on at least the generated likelihood value; and

providing a reliability indication of the amplitude information conveyed by the received communications signal.

7. (Currently Amended) A method according to claim 6, characterised in ~~that~~ wherein the modulation scheme is 16-QAM wherein each signal symbol comprises four bits and where two predetermined bits of said four bits depend on amplitude information; and the method further comprises adjusting the likelihood values of said two predetermined bits to a value corresponding to higher uncertainty, if a change in amplitude is detected during the time slot for communicating said four bit sequence.

8. (Currently Amended) ~~A method according to anyone of claims 4 through 7, characterised in that the method further comprises~~ A method of decoding a communications signal in a digital communications system, wherein the communications signal is modulated according to a modulation scheme including amplitude information. the method comprising

generating a likelihood value for a received communications signal, wherein the step of generating the likelihood value further comprises generating the likelihood value on the basis of the provided reliability indication of the amplitude information;

decoding the communications signal based on at least the generated likelihood value;

providing a reliability indication of the amplitude information conveyed by the received communications signal; and

rejecting (705) all received signal symbols received within a time interval comprising a predetermined number of consecutive slots, if a change in amplitude by a

predetermined magnitude is detected in more than a predetermined fraction of slots of said number of consecutive slots.

9. (Currently Amended) ~~[[A]] The method according to anyone of claims 1 through 8, characterised in that~~ claim 2, wherein the communications signal is modulated according to a quadrature amplitude modulation scheme.

10. (Currently Amended) ~~A method according to anyone of claims 1 through 9, characterised in that~~ A method of decoding a communications signal in a digital communications system, wherein the communications signal is modulated according to a modulation scheme including amplitude information, the method comprising
generating a likelihood value for a received communications signal, wherein the step of generating the likelihood value further comprises generating the likelihood value on the basis of the provided reliability indication of the amplitude information;
decoding the communications signal based on at least the generated likelihood value; and
providing a reliability indication of the amplitude information conveyed by the received communications signal, wherein the communications signal is a communications signal of a High Speed Downlink Packet Access of a 3GPP Wideband Code Division Multiple Access.

11. (Canceled)

12. (Currently Amended) ~~An arrangement according to claim 11, characterised in that the arrangement further comprises~~ An arrangement for decoding a communications signal in a digital communications system, where the communications signal is modulated according to a modulation scheme including amplitude information, the arrangement comprising:
a receiver module for receiving the communications signal[[.];

processing means adapted to generate a likelihood value for a received communications signal, wherein the processing means is further adapted to generate the likelihood value on the basis of the provided reliability indication of the amplitude information, the receiver module being adapted to provide the reliability indication;

a decoder for decoding the communications signal based on at least the generated likelihood value; and

means for providing a reliability indication of the amplitude information conveyed by the received, communications signal.

13. (Currently Amended) [[An]] The arrangement according to claim 12, ~~characterised in that wherein~~ the arrangement further comprises an amplifier for scaling the received communications signal; and [[that]] wherein the receiver module is further adapted to generate the reliability indication on the basis of a gain setting of said amplifier.

14. (Currently Amended) ~~An arrangement according to anyone of claims 11 through 13, characterised in that~~ An arrangement for decoding a communications signal in a digital communications system, where the communications signal is modulated according to a modulation scheme including amplitude information, the arrangement comprising:

processing means adapted to generate a likelihood value for a received communications signal, wherein the processing means is further adapted to generate the likelihood value on the basis of the provided reliability indication of the amplitude information wherein the processing means is further adapted to determine whether an amplitude change by a predetermined magnitude has occurred within a predetermined time period;

a decoder for decoding the communications signal based on at least the generated likelihood value; and

means for providing a reliability indication of the amplitude information conveyed by the received, communications signal.

15. (Currently Amended) ~~[[An]]~~ The arrangement according to claim 14, ~~characterised in that wherein~~ the predetermined time period corresponds to a time slot for communicating a bit sequence.

16. (Currently Amended) ~~An arrangement according to anyone of claims 14 through 15, characterised in that~~ An arrangement for decoding a communications signal in a digital communications system, where the communications signal is modulated according to a modulation scheme including amplitude information, the arrangement comprising:

processing means adapted to generate a likelihood value for a received communications signal, wherein the processing means is further adapted to generate the likelihood value on the basis of the provided reliability indication of the amplitude information wherein the processing means is further adapted to adjust the likelihood value to a value corresponding to higher uncertainty of a predetermined bit value if an amplitude change has occurred and if said bit value is encoded using amplitude information;

a decoder for decoding the communications signal based on at least the generated likelihood value; and

means for providing a reliability indication of the amplitude information conveyed by the received, communications signal.

17. (Currently Amended) ~~[[An]]~~ The arrangement according to claim 16, ~~characterised in that wherein~~ the modulation scheme is 16-QAM wherein each signal symbol comprises four bits and where two predetermined bits of said four bits depend on amplitude information; and the processing means is further adapted to adjust the likelihood values of said two predetermined bits to a value corresponding to higher uncertainty, if a change in amplitude is detected during the time slot for communicating said four bit sequence.

18. (Currently Amended) ~~An arrangement according to anyone of claims 11 through 17, characterised in that~~ An arrangement for decoding a communications signal in a digital communications system, where the communications signal is modulated according to a modulation scheme including amplitude information, the arrangement comprising:

processing means adapted to generate a likelihood value for a received communications signal, wherein the processing means is further adapted to generate the likelihood value on the basis of the provided reliability indication of the amplitude information, wherein the processing means is further adapted to reject all received signal symbols received within a time interval comprising a predetermined number of consecutive slots, if a change in amplitude by a predetermined magnitude is detected in more than a predetermined fraction of slots of said number of consecutive slots;

a decoder for decoding the communications signal based on at least the generated likelihood value;

means for providing a reliability indication of the amplitude information conveyed by the received, communications signal.

19. (Currently Amended) ~~[[An]] The arrangement according to anyone of claims 11 through 18, characterised in that claim 12, wherein~~ the communications signal is modulated according to a quadrature amplitude modulation scheme.

20. (Currently Amended) ~~An arrangement according to anyone of claims 11 through 19, characterised in that~~ An arrangement for decoding a communications signal in a digital communications system, where the communications signal is modulated according to a modulation scheme including amplitude information, the arrangement comprising:

processing means adapted to generate a likelihood value for a received communications signal, wherein the processing means is further adapted to generate the likelihood value on the basis of the provided reliability indication of the amplitude information;

a decoder for decoding the communications signal based on at least the generated likelihood value; and

means for providing a reliability indication of the amplitude information conveyed by the received communications signal, wherein the communications signal is a communications signal of a High Speed Downlink Packet Access of a 3GPP Wideband Code Division Multiple Access.

21. (Currently Amended) ~~[[An]] The arrangement according to anyone of claims 11 through 20, characterised in that the arrangement comprises~~ claim 12, further comprising:

~~[[-]]~~ a receiver (402) for receiving a communication signal;

~~[[-]]~~ an amplifier (403) for scaling the received communications signal according to a predetermined amplifier gain;

~~[[-]]~~ a gain control module (440) for controlling the amplifier gain according to a received signal strength, the gain control module being adapted to feed a gain control signal to the amplifier; and

~~[[-]]~~ a control unit (302) for generating amplitude information (444), the control unit being adapted to receive the gain control signal from the gain control unit and to generate an amplitude information signal; and

that the processing means is adapted to receive the amplitude information signal from the control unit.

22. (Currently Amended) ~~[[An]] The arrangement according to anyone of claims 11 through 21, characterized in that the digital communications system is~~ claim 12, as implemented in a cellular communications system.

23. (Currently Amended) ~~[[An]] The arrangement according to claim 22, characterized in that~~ 12, wherein the arrangement is comprised in a mobile terminal of the cellular communications system.

24. (Currently Amended) ~~[[An]]~~ The arrangement according to claim 22,
~~characterized in that 12, wherein~~ the arrangement is comprised in a base station of the
cellular communications system.

25. (Currently Amended) ~~[[A]]~~ The arrangement according to claim 12, as
implemented in a device for receiving a communications signal, ~~the device comprising~~
~~an arrangement according to anyone of the claims 11 through 24.~~

26. (Currently Amended) ~~A device~~ The arrangement according to claim 25,
~~characterised in that wherein~~ the device further comprises a decoder adapted to receive
an input signal from the arrangement indicative of the determined reliability value.

27. (Currently Amended) ~~A device~~ The arrangement according to claim 25 or
26, ~~characterised in that wherein~~ the device is a mobile terminal.